

KIC 007110615

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007110615-01	OBS	No	376.289640	296.403589	226.8	23.091	8.4	8.4	2.57	6362	4.22	7.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007110615-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

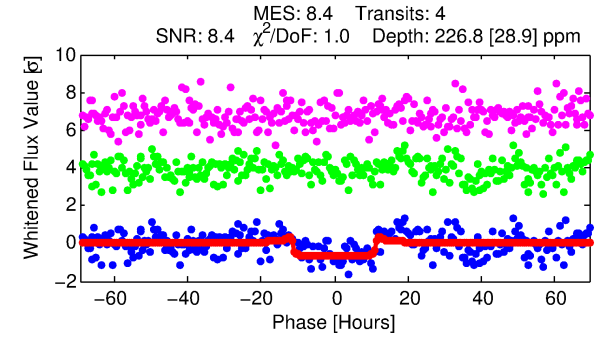
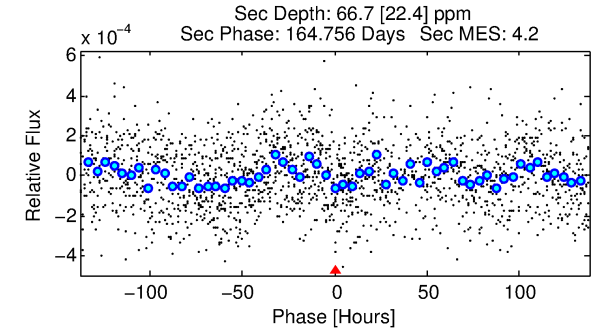
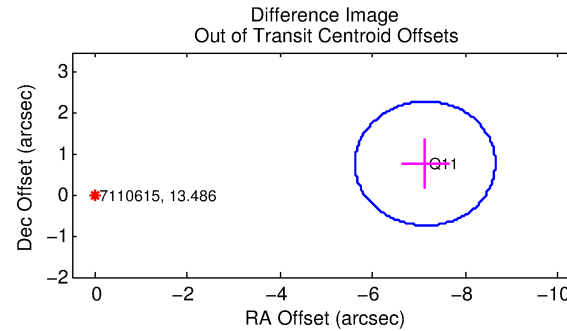
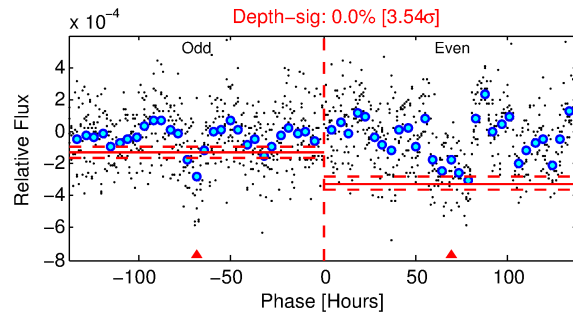
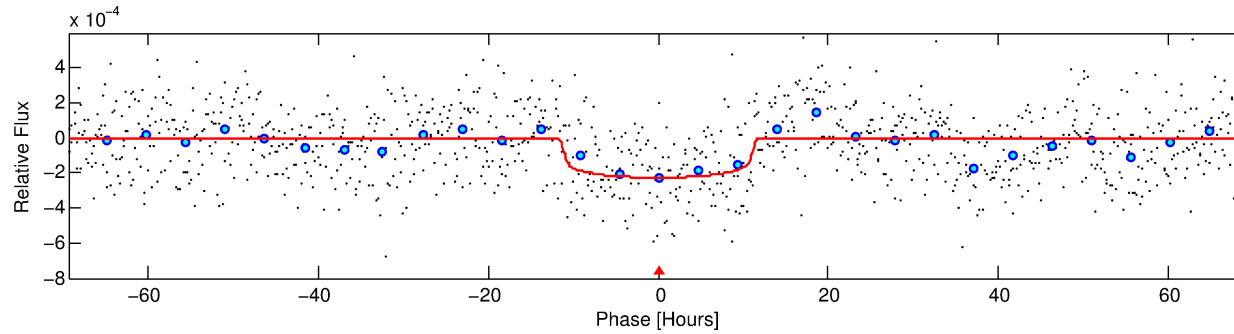
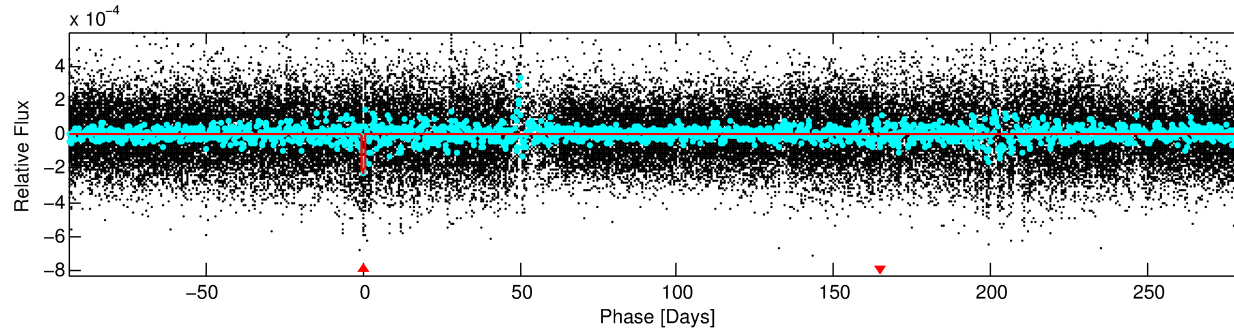
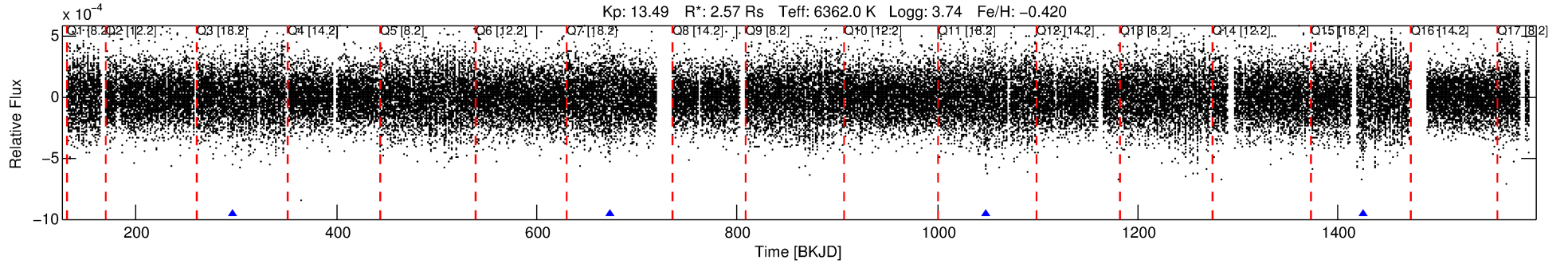
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007110615-01

No Significant Match Found

DV One-Page Summary

KIC: 7110615 Candidate: 1 of 1 Period: 376.290 d



DV Fit Results:

Period = 376.28964 [0.01055] d
Epoch = 296.4036 [0.0195] BKJD
Rp/R* = 0.0150 [0.0022]
a/R* = 83.06 [56.99]
b = 0.77 [0.37]
Seff = 7.77 [4.49]
Teq = 426 [61] K
Rp = 4.22 [1.73] Re
a = 1.1169 [0.4004] AU
Ag = 2568.25 [1842.56] [1.39 σ]
Teffp = 4686 [538] K [7.87 σ]

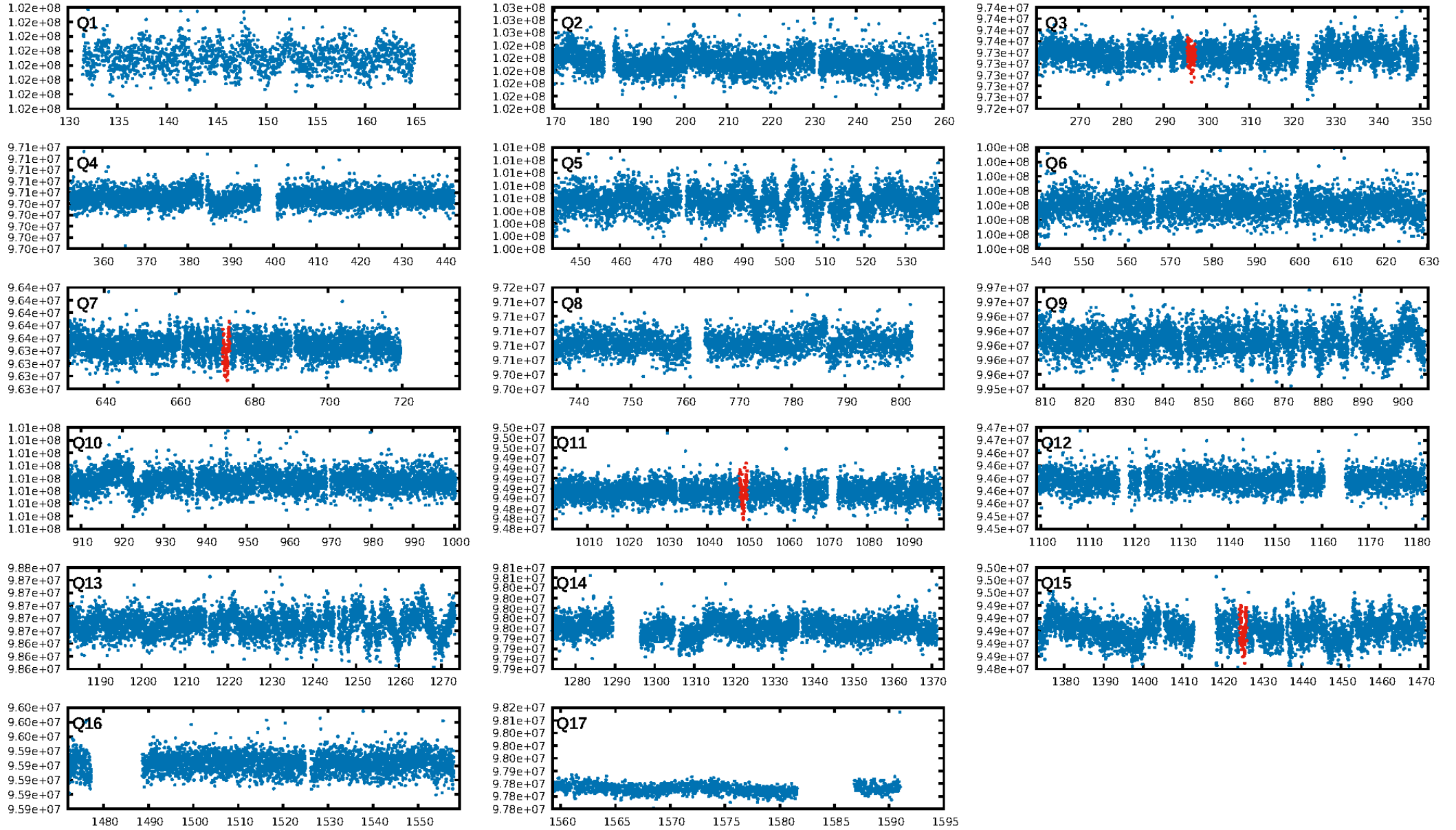
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 98.4%
Bootstrap-pfa: 1.16e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 42.11
Centroid-sig: 10.1%
Centroid-so: 2.015 arcsec [1.29 σ]
OotOffset-rm: 7.175 arcsec [14.18 σ]
KicOffset-rm: 6.956 arcsec [13.77 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

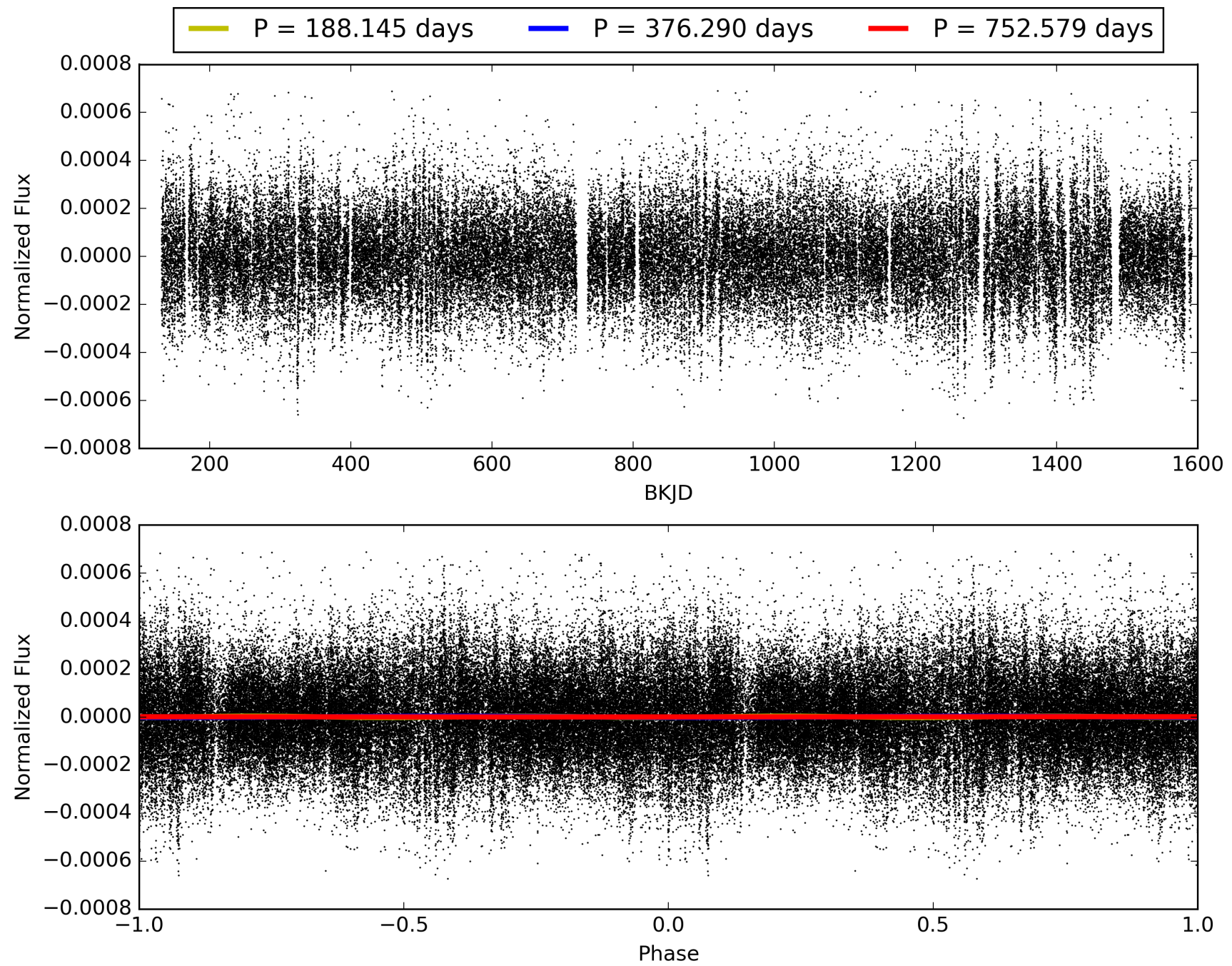
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:34:06 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007110615-01, PDC Light Curves

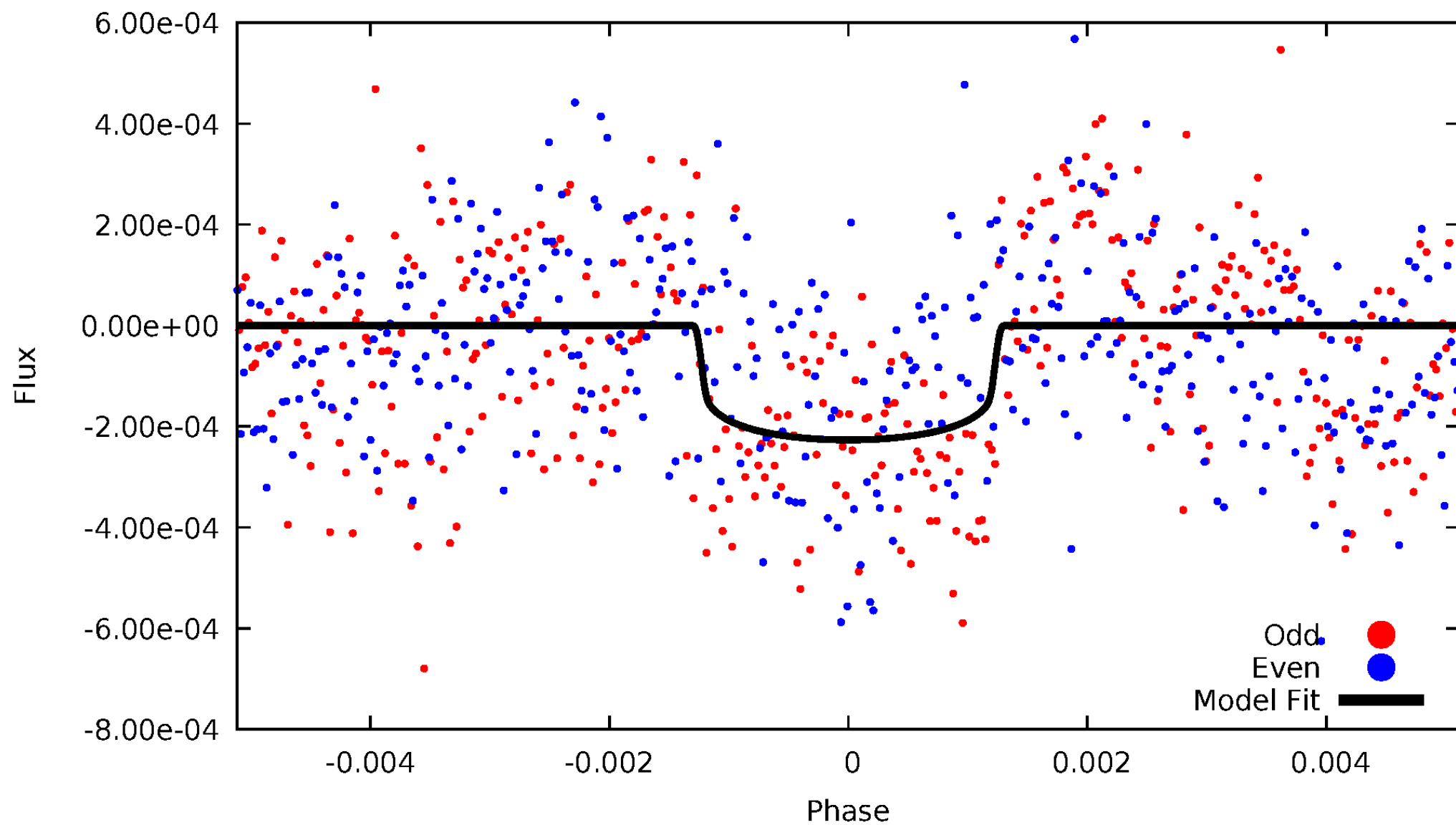


TCE 007110615-01



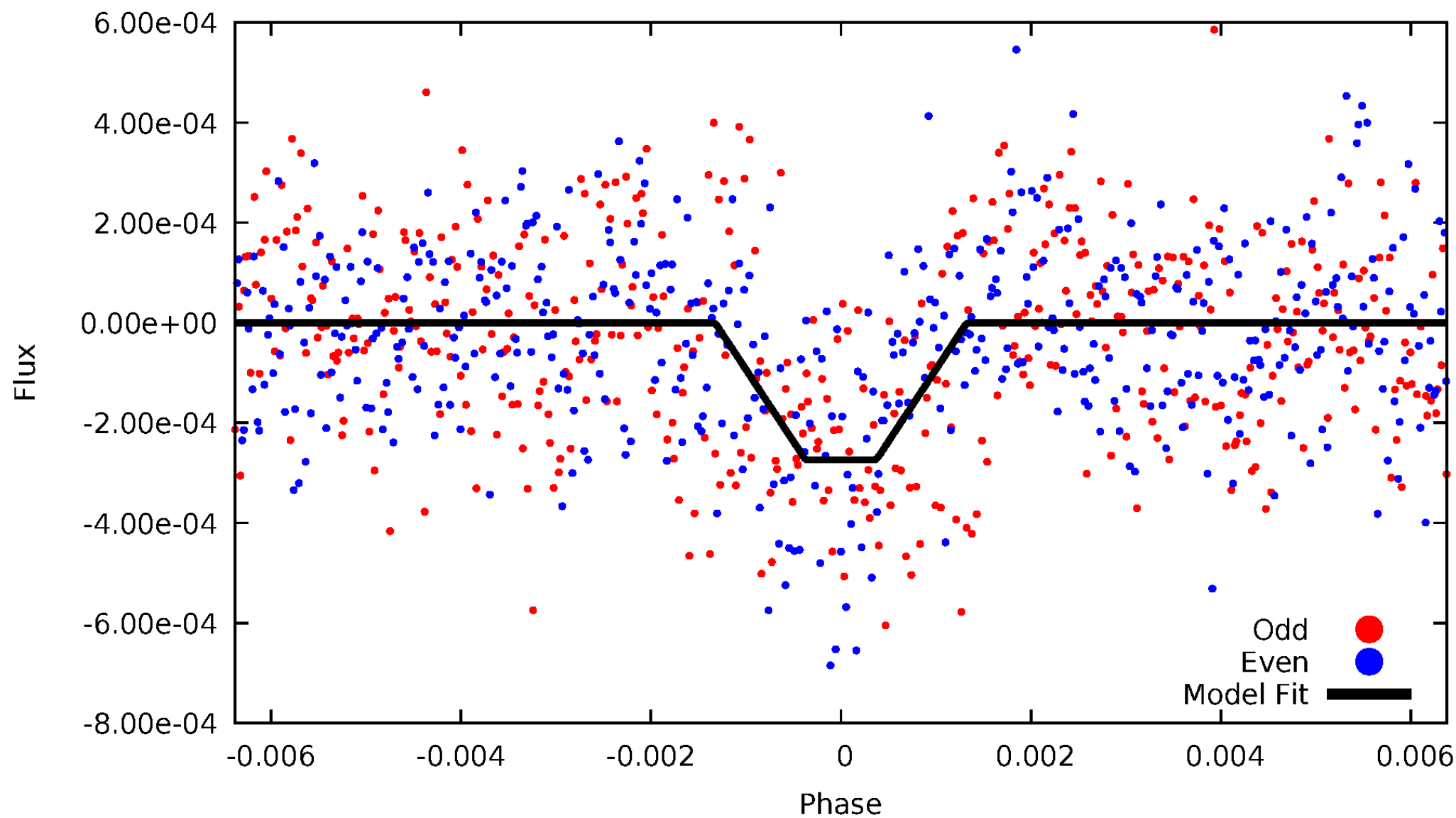
DV Odd/Even

TCE 007110615-01

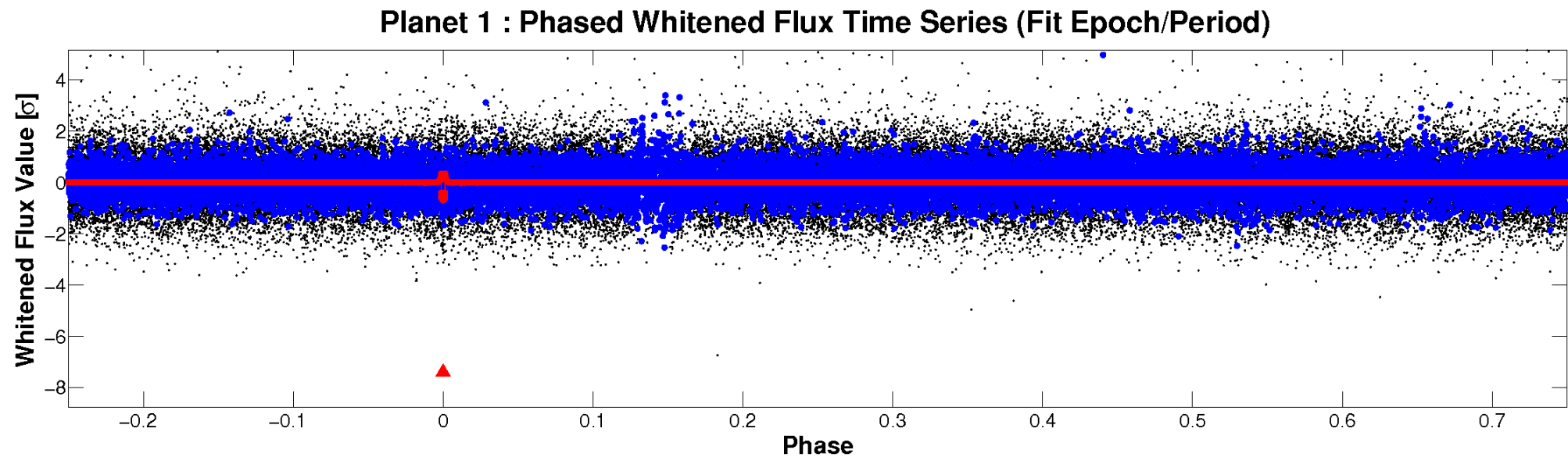
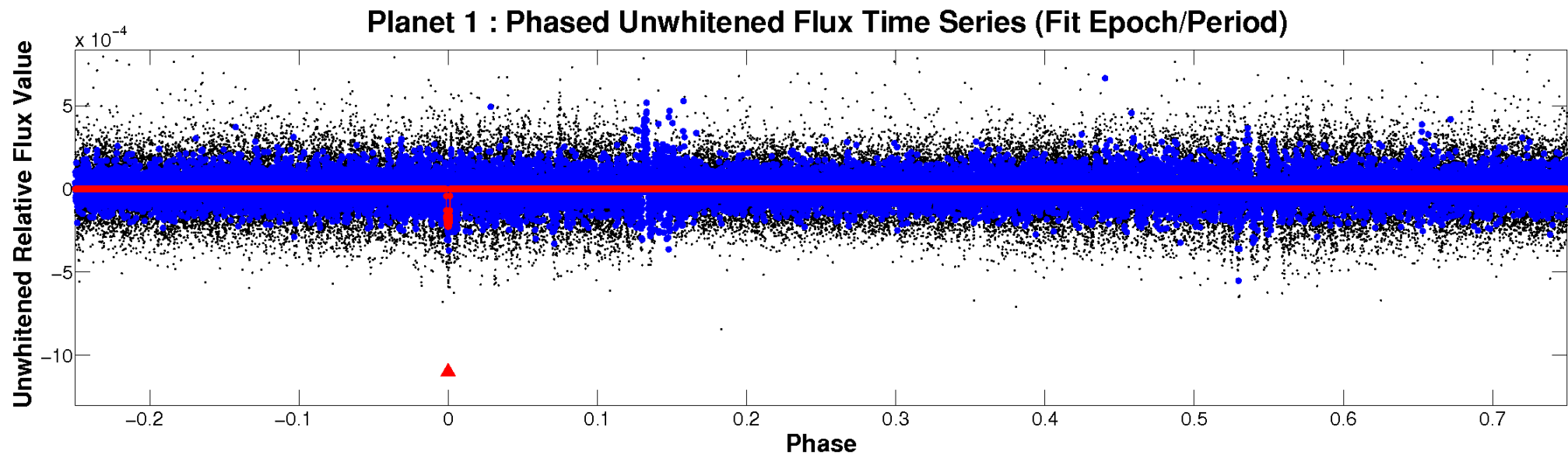


ALT Odd/Even

TCE 007110615-01

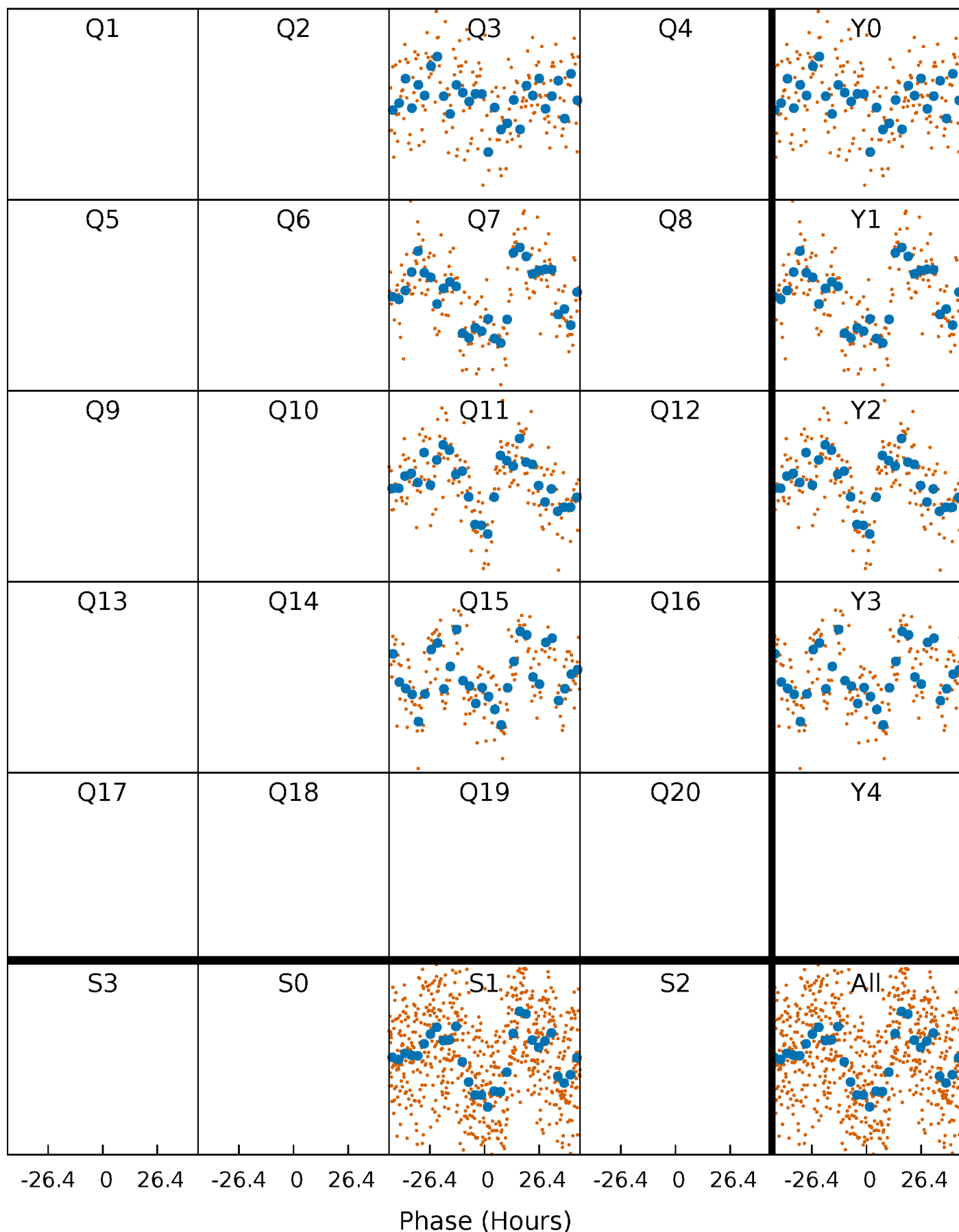


Non-Whitened Vs. Whitened Light Curve



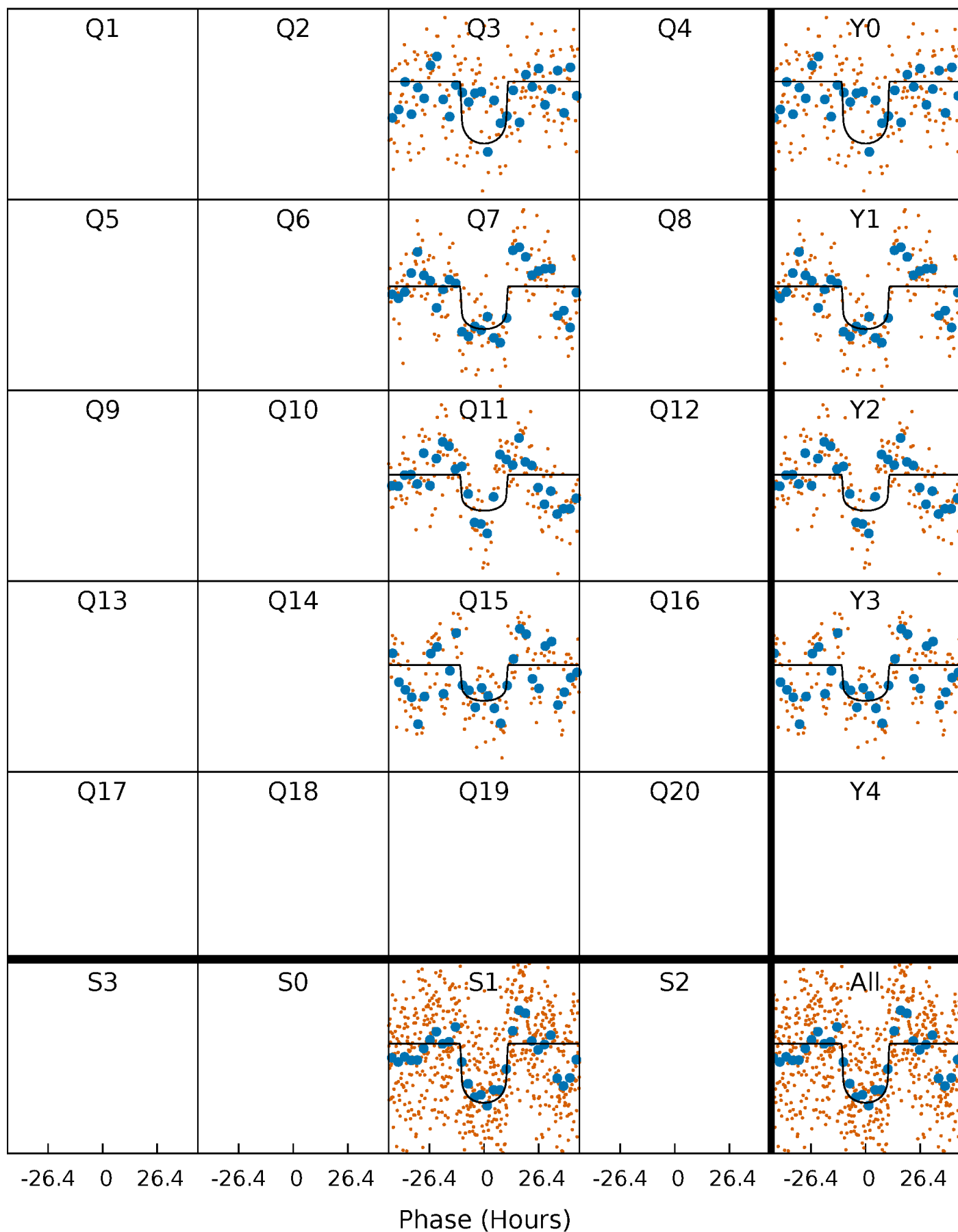
PDC Quarter-Phased Transit Curves

TCE 007110615-01 P=376.289641 Days $T_0=296.403589$ (BKJD)



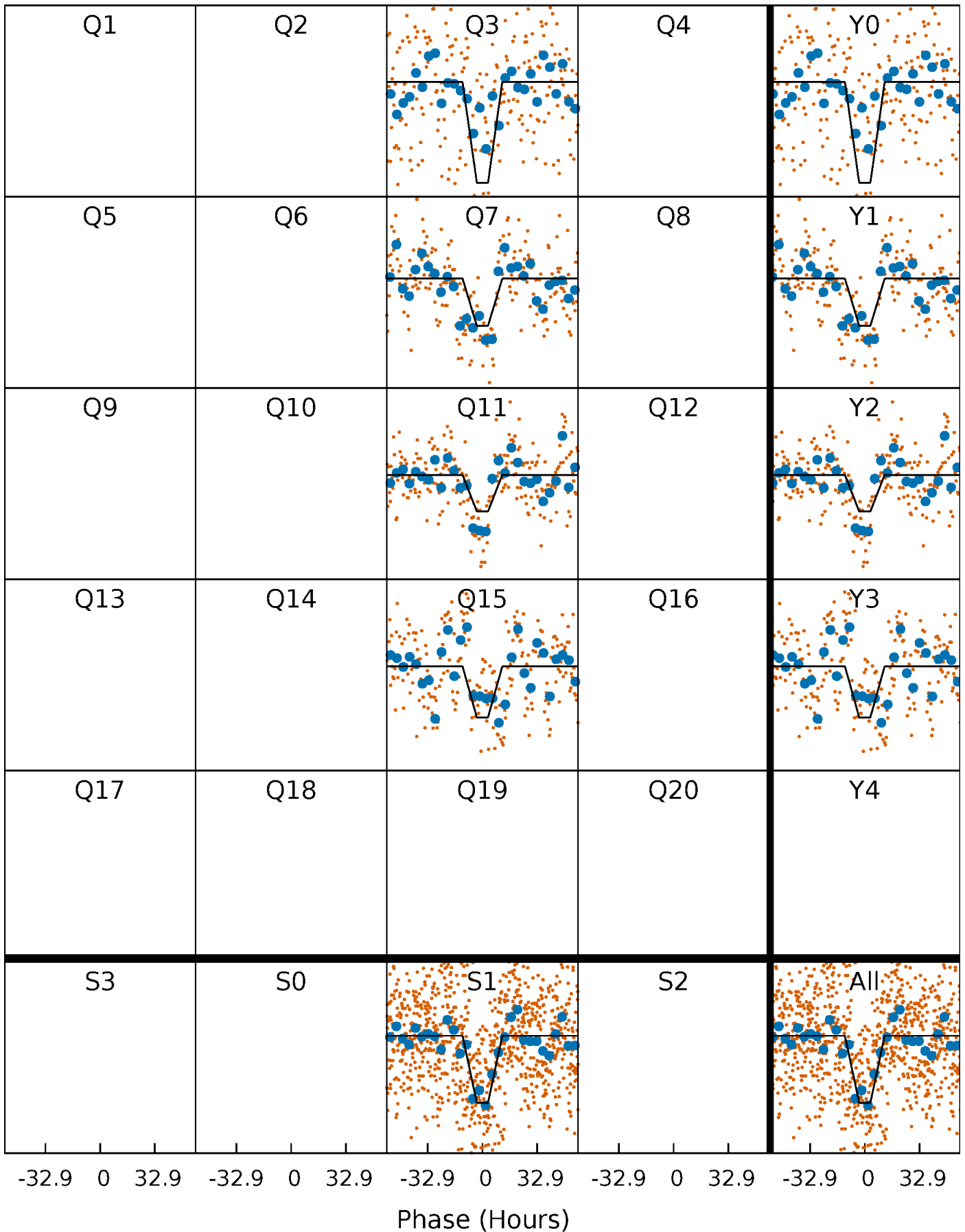
DV Quarter-Phased Transit Curves

TCE 007110615-01 P=376.289641 Days $T_0=296.403589$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

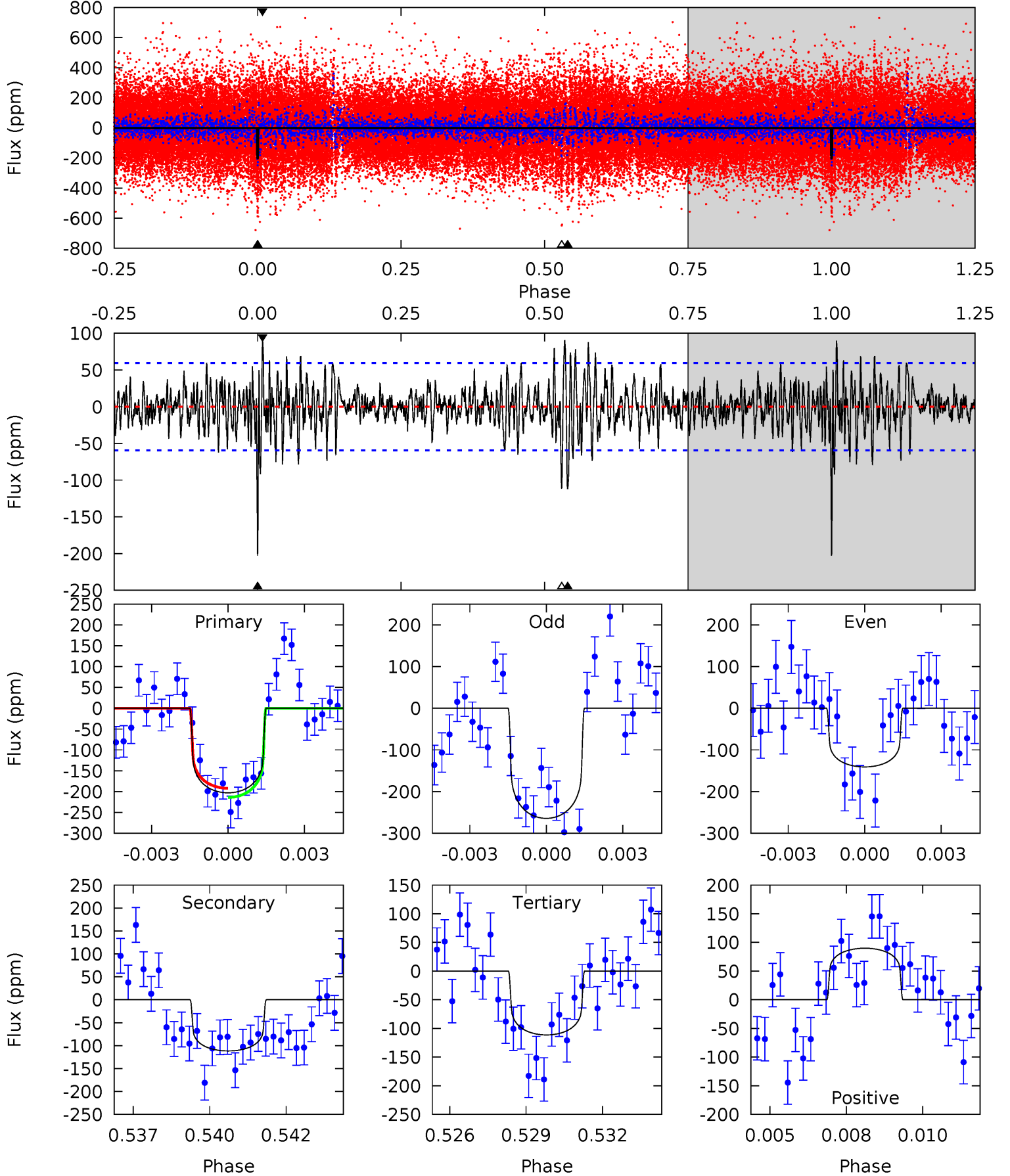
TCE 007110615-01 P=376.154595 Days $T_0=296.691691$ (BKJD)



DV Model-Shift Uniqueness Test

007110615-01, P = 376.289641 Days, E = 296.403589 Days

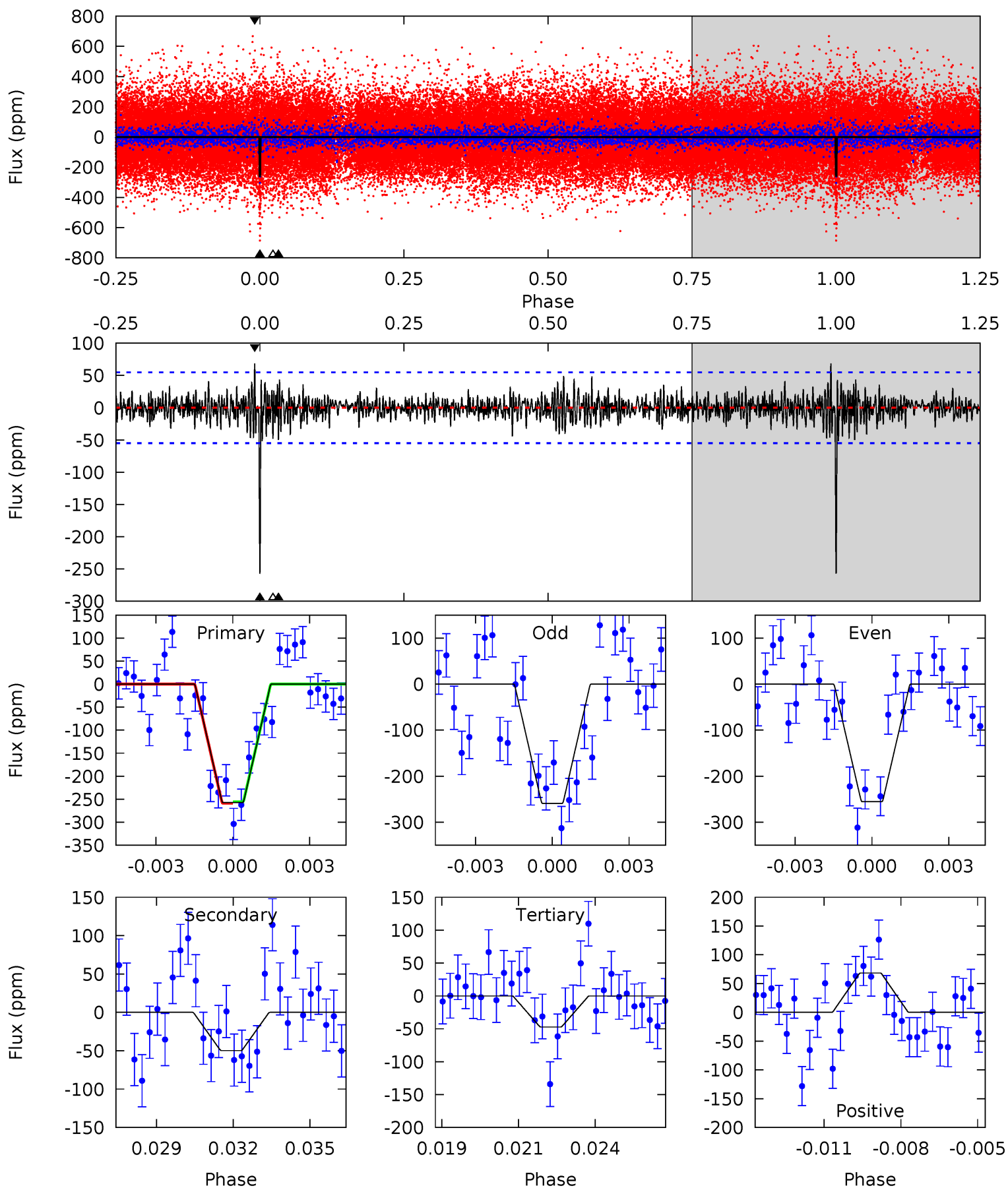
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.0	9.92	9.89	7.98	5.28	3.01	2.18	8.13	10.0	0.03	1.94	5.49	0.95	0.31	0.98



Alt Model-Shift Uniqueness Test

007110615-01, P = 376.154595 Days, E = 296.691691 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.7	4.78	4.55	6.58	5.27	3.00	1.28	20.2	18.1	0.24	-1.79	0.17	0.99	0.21	0.14



Stellar Parameters For KIC 007110615

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6362^{+174}_{-194}	$3.736^{+0.328}_{-0.082}$	$-0.420^{+0.350}_{-0.300}$	$2.570^{+0.422}_{-0.984}$	$1.311^{+0.225}_{-0.275}$	$0.109^{+0.243}_{-0.029}$
	+3%/-3%	+9%/-2%	+83%/-71%	+16%/-38%	+17%/-21%	+224%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007110615-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-112 ± 11	$4.07^{+0.79}_{-0.96}$	582^{+34}_{-54}	5350^{+443}_{-336}	4793^{+3021}_{-1421}
Alt.	-50 ± 10	$4.44^{+0.91}_{-1.01}$	583^{+30}_{-55}	4357^{+315}_{-272}	1749^{+1145}_{-609}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

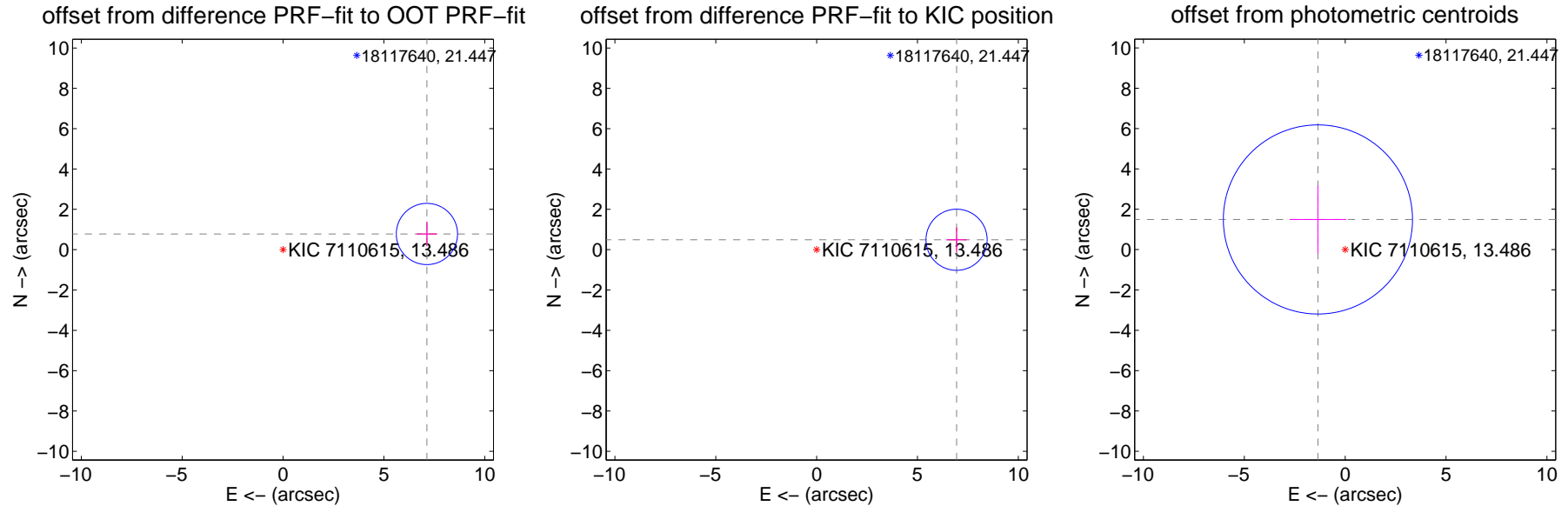
DV Centroid Data

Supplemental centroid analysis for 007110615-01. Kepler magnitude: 13.49. Transit SNR 8.43

There are 0 quarters with good PRF difference image offsets

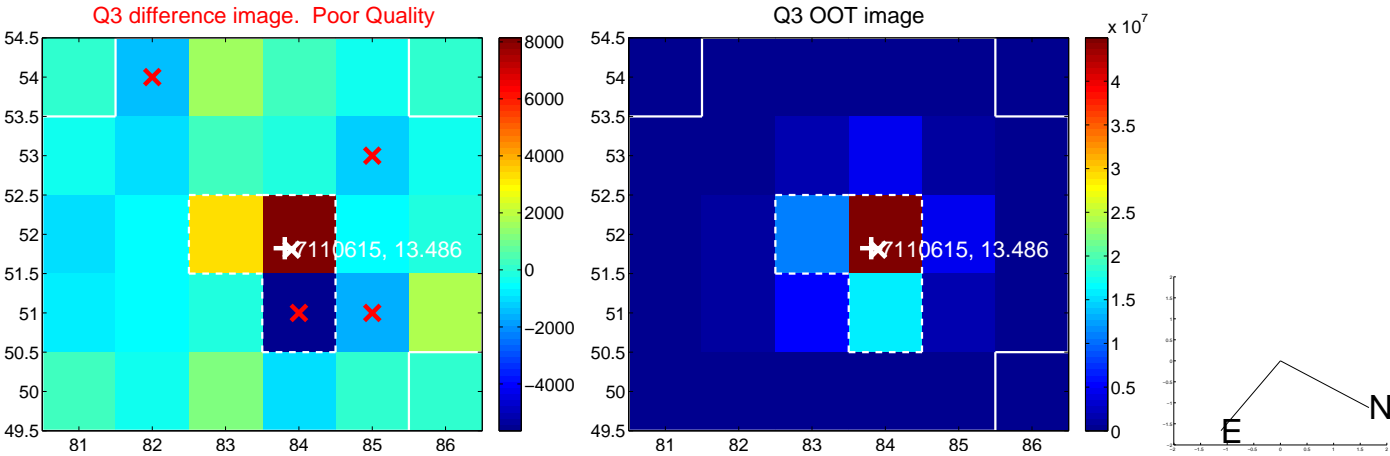
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.175 ± 0.506	14.18	-7.132 ± 0.505	0.778 ± 0.607
PRF-fit source offset from KIC position	6.956 ± 0.505	13.77	-6.938 ± 0.505	0.491 ± 0.607
photometric centroid source offset	2.01 ± 1.56	1.29	1.35 ± 1.41	1.49 ± 1.68

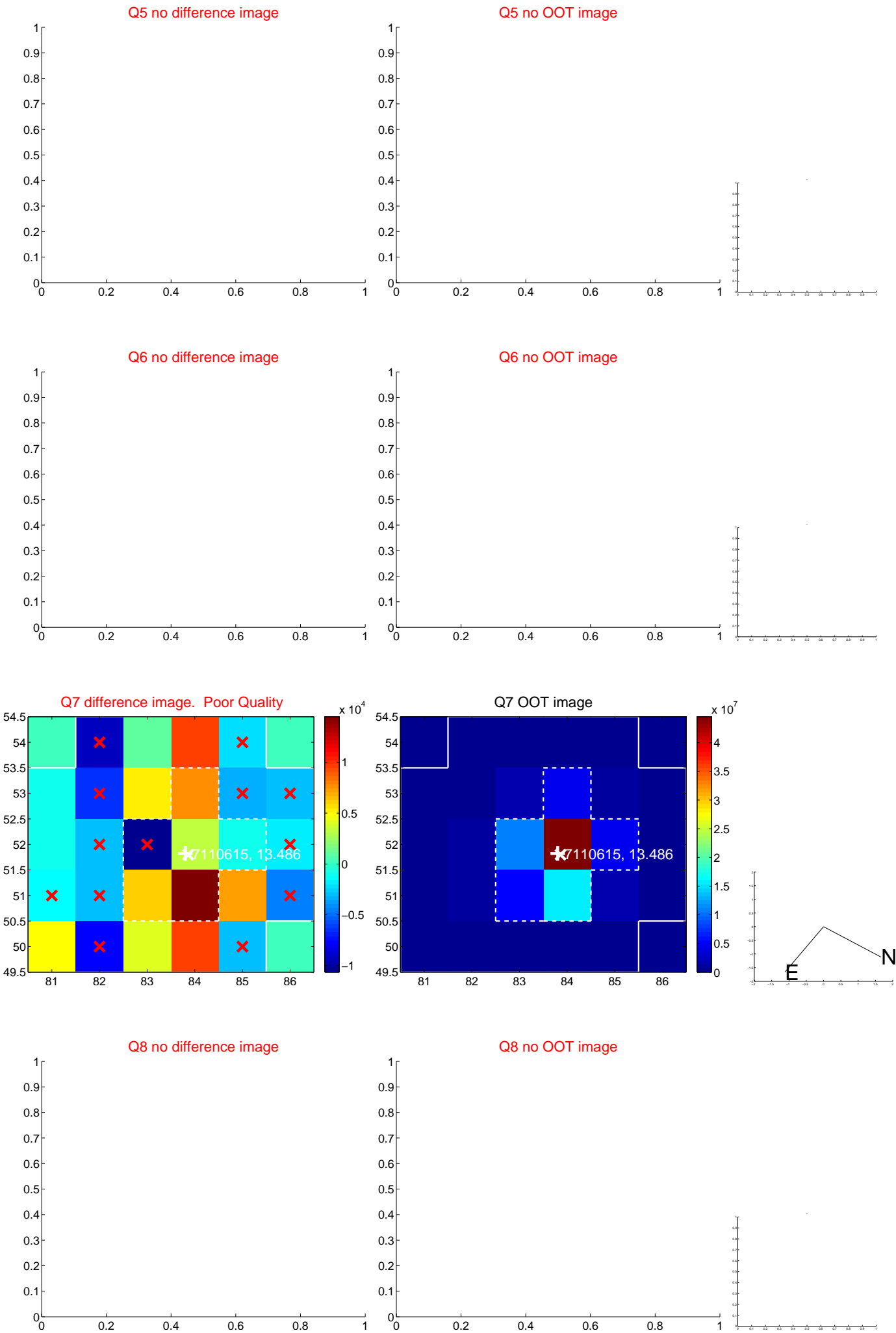


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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Q9 no difference image



Q9 no OOT image



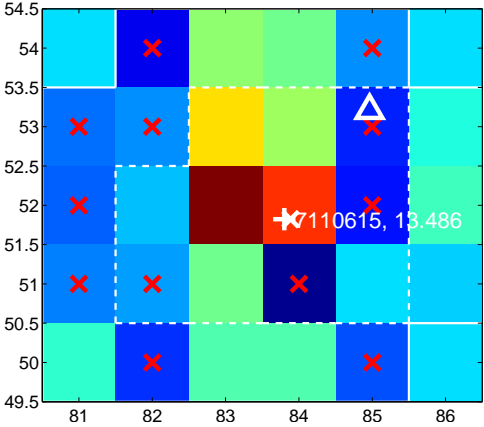
Q10 no difference image



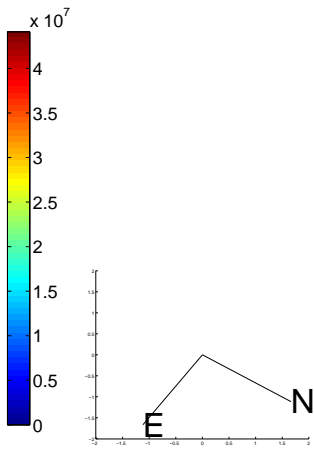
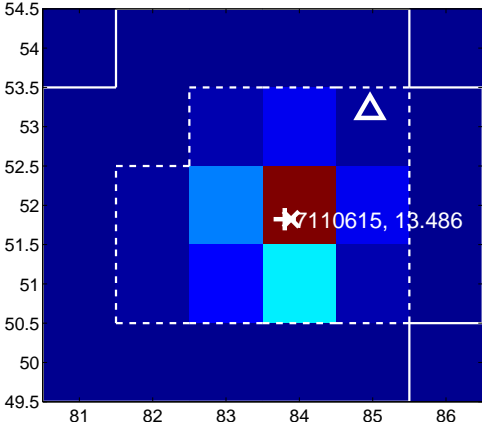
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



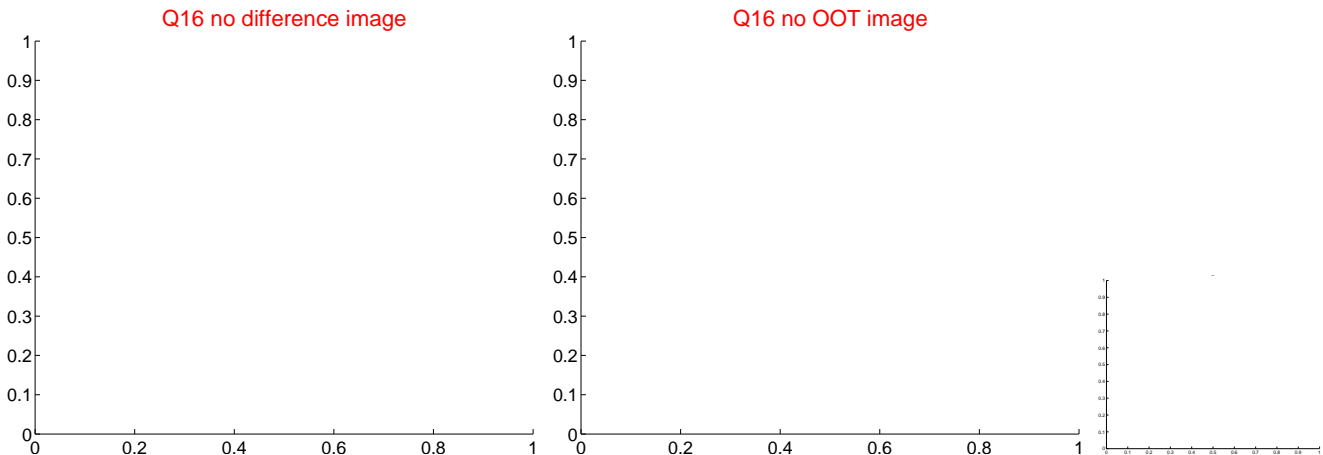
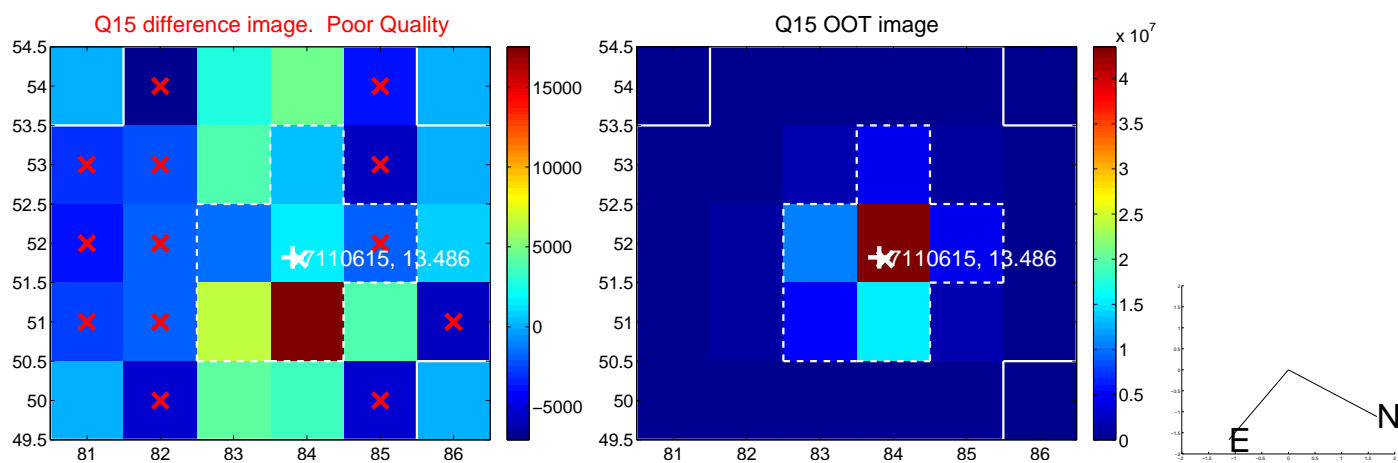
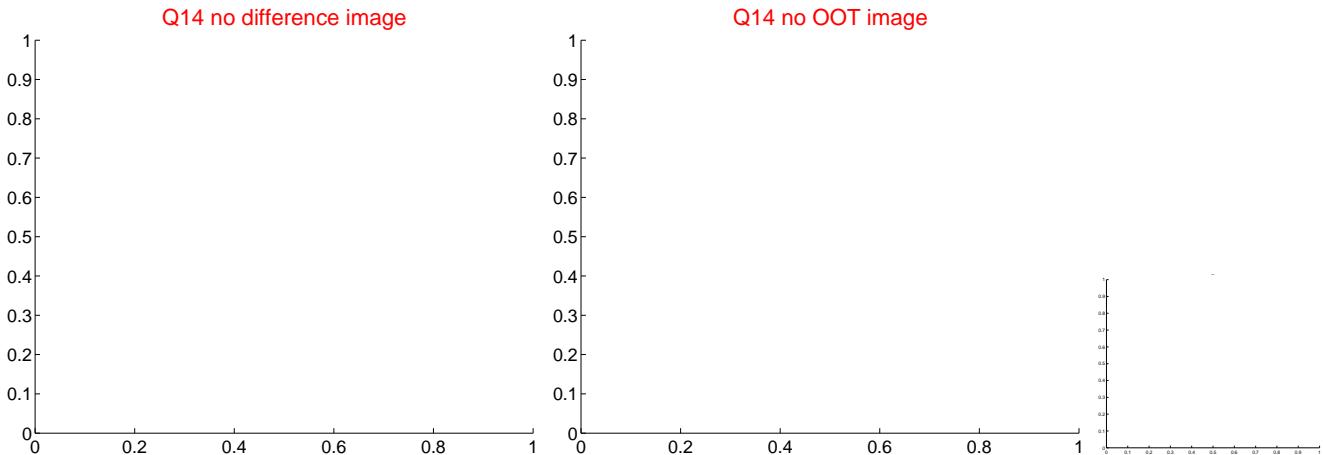
Q12 no difference image



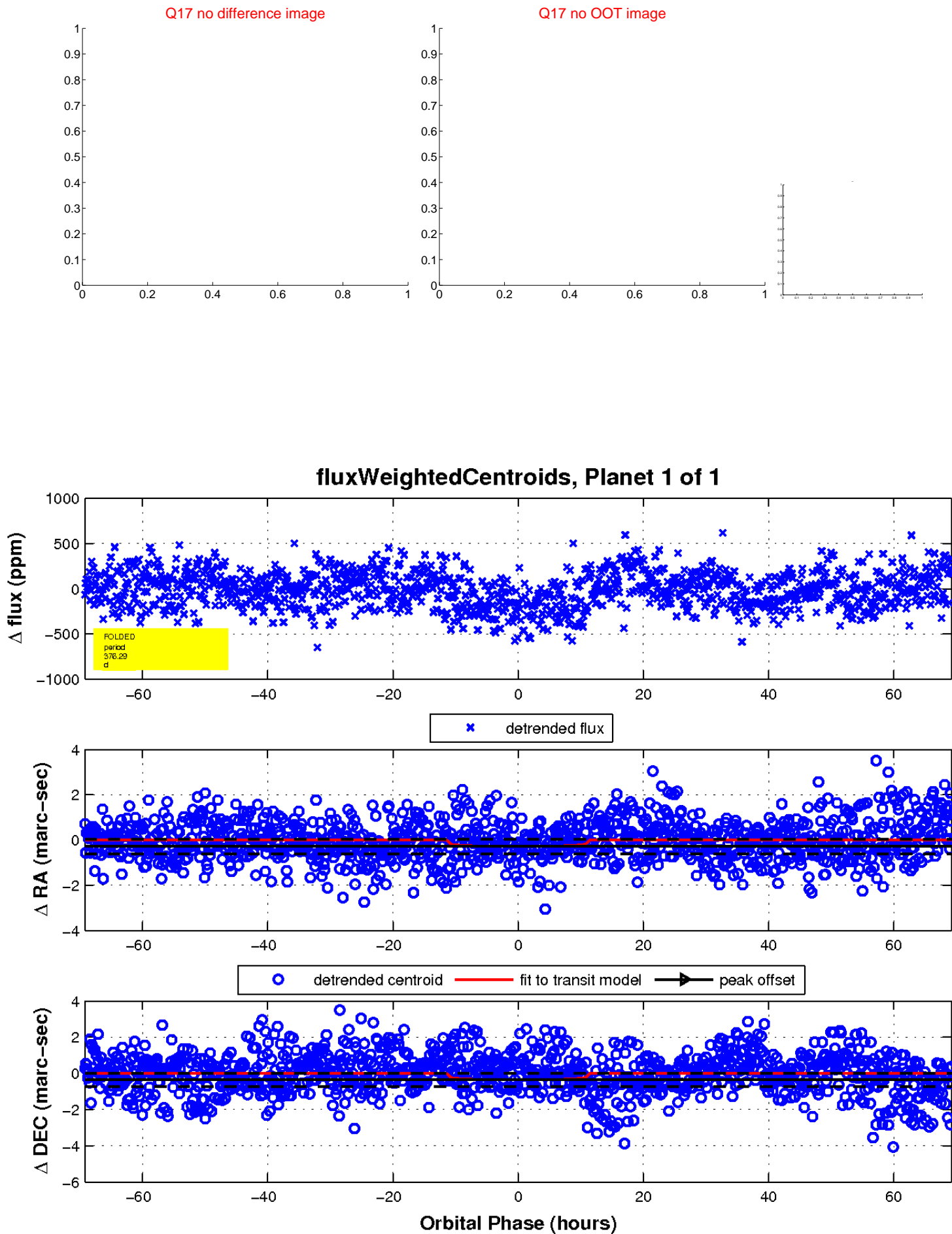
Q12 no OOT image



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

